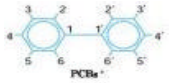
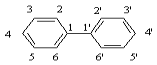


PCB Information

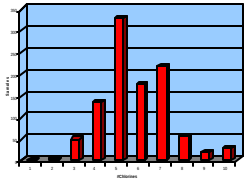


What Are PCBs?

Polychlorinated Biphenyls

- Cconsists of hydrogen, carbon, and chlorine
- 209 Distinct PCB compounds
- Commercial production began in 1929 and were considered a wonder product
- Production ended in 1977 due to human health concerns
- Stable at very high temperatures
- Commercially available as Aroclors

The more chlorine atoms a PCB molecule has, the longer it stays in the environment



10 Homologs

Common PCB Uses

- Transformers/capacitors
- Hydraulic Fluids
- Light Ballasts
- Fire Retardants
- Carbonless paper
- Building Materials (Caulk, paint)
- Dyes

Sources of PCBs

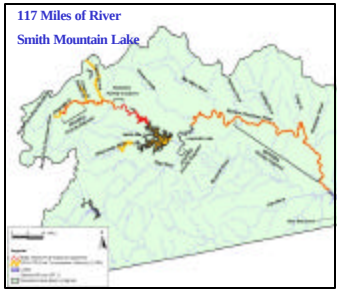
- **Point Sources** – municipal and industrial wastewater treatment plants ***The Legacy Continues***
- **Nonpoint Sources** – stormwater runoff from urban areas, combined sewer overflows, atmospheric deposition, runoff from contaminated sites
- **Tributaries** – contamination entering the Staunton from smaller tributary rivers

PCB Impaired waterbodies in Virginia

PCBs in Fish Tissue for 2006

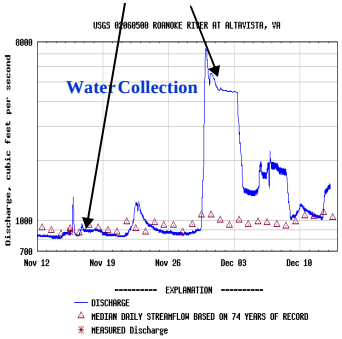
- 973 River Miles
- 72,000 acres in Lakes
- 2,110 sq miles of Estuarine Waters

Roanoke/Staunton PCB Impairment

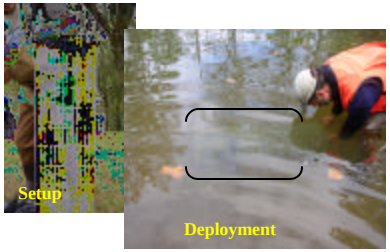


PCB Monitoring Approaches

Water Samples



Virtual Fish (SPMD)



Sediment Collection